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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
WEST, JEFFREY R

ART UNIT	PAPER NUMBER
2857	

DATE MAILED: 11/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/730,152	MAYER ET AL.	
	Examiner	Art Unit	
	Jeffrey R. West	2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/08/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1, 10, 11, 13, 18, 20, and 21 are objected to because of the following informalities:

In claim 1, line 5, to avoid problems of antecedent basis, "first parameter" should be ---first varying and measurable parameter---.

In claim 1, line 9, to avoid problems of antecedent basis, "second parameter" should be ---second varying and measurable parameter---.

In claim 10, line 1, to avoid problems of antecedent basis, "first parameter" should be ---first varying and measurable parameter---.

In claim 11, line 4, to avoid problems of antecedent basis, "temperature according" should be ---temperature level according---.

In claim 13, line 3, "level indicate" should be ---level indicates---.

In claim 18, line 5, to avoid problems of antecedent basis, "first parameter" should be ---first varying and measurable parameter---.

In claim 18, line 9, to avoid problems of antecedent basis, "second parameter" should be ---second varying and measurable parameter---.

In claim 18, line 12, to avoid confusion, "a first at least two" should be something similar to ---a first set of at least two---.

In claim 18, line 13, to avoid confusion, "a first at least two" should be something similar to ---a first set of at least two---.

In claim 20, line 2, "the message provides" should be ---the one or more messages provide---.

In claim 21, line 1, to avoid problems of antecedent basis, "first parameter" should be ---first varying and measurable parameter---.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 is considered to be vague and indefinite because it recites a step for retrieving "at least a second message string from the first and second message strings". In this limitation it is unclear how a second message string can be retrieved from a first message string since a first message string does not contain a second message string. It is further unclear how a second message string can be retrieved from a second message string since retrieve is generally defined as "regaining" and one having ordinary skill in the art would not understand how to regain a second message string from itself.

Claim 3 is similarly rejected as being vague and indefinite because it recites a step for retrieving "at least a second message string from the first and second

message strings". In this limitation it is unclear how a second message string can be retrieved from a first message string since a first message string does not contain a second message string. It is further unclear how a second message string can be retrieved from a second message string since retrieve is generally defined as "regaining" and one having ordinary skill in the art would not understand how to regain a second message string from itself.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-5, 10, 11, and 13-20, as may best be understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,502,409 to Gatling et al. in view of U.S. Patent No. 6,453,687 to Sharood et al.

Gatling discloses a system comprising a first display case including a first controlled environmental space that is adapted to maintain products (column 3, lines 1-15), the first controlled environmental space having a first varying and measurable parameter and a first sensor coupled to the environmental space, the first sensor sensing the first varying and measurable parameter and generating a first signal including a first parameter level (column 6, lines 15-21 and column 7, lines 31-34), a second display case including a second controlled environmental space that is

adapted to maintain products (column 3, lines 1-15), the second controlled environmental space having a second varying and measurable parameter and a second sensor coupled to the second environmental space, the second sensor sensing the second variable and measurable parameter and generating a second signal including a second parameter level (column 6, lines 15-21 and column 7, lines 31-34).

Gatling discloses a computer inherently including a memory with associated software and a processor in communication with the first and second display cases (column 6, lines 18-24), the memory including at least two first predetermined parameter values associated with the first and second sensors (i.e. maximum allowable temperature and allowable difference) (column 8, lines 33-51), with the processor configured to receive the first and second signals (column 8, lines 13-17), receive at least one of the two first and second predetermined parameter values (column 8, lines 17-32), compare the first and second parameter levels with the received predetermined parameter values of the first and second predetermined parameter values (column 8, lines 33-41), and responsive to relationships between the parameter levels and the predetermined parameter values, control the controlled environmental spaces (column 7, lines 46-56 and column 8, lines 41-43).

Gatling discloses that the first predetermined parameter is a temperature associated with at least one of product safety and product quality (column 1, lines 13-23 and column 8, lines 27-32).

Gatling discloses that the first varying and measurable parameter level indicates the condition of a first plurality of products stored in the first environmental space and the second varying and measurable parameter level indicates the condition of a second plurality of products stored in the second environmental space (column 1, lines 13-23).

With respect to claim 10, Gatling also discloses a memory for recording/logging temperature levels (column 6, lines 21-24).

With respect to claim 11, Gatling discloses retrieving at least one previously recorded/logged temperature level (column 7, lines 32-37), processing the at least one retrieved temperature level according to an algorithm to provide an algorithm value in the form of an average up to a current time (column 7, lines 38-40), compare the algorithm value (i.e. average) to a predetermined benchmark value (column 7, liens 46-56), and provide an alarm signal responsive to a predetermined relationship between the algorithm value and the benchmark value (column 7, lines 4-19).

As noted above, the invention of Gatling teaches many of the features of the claimed invention, and while Gatling does disclose comparing the parameter levels to the predetermined parameters in order to control the environmental spaces (column 1, line 57 to column 2, line 6) for ensuring food quality and safety (column 1, lines 13-23), Gatling does not specifically include, responsive to the comparison, retrieving at least a first message string from message string sets encoded in a message string.

Sharood teaches a refrigeration monitor unit including a controlled environmental space adapted to maintain products having a varying and measurable parameter (column 1, lines 51-62) that is received by a processor with an associated memory storing data for comparisons (column 9, lines 13-16 and 34-37), wherein responsive to a relationship based upon a comparison between the varying and measurable parameter and a predetermined parameter value a first message string is retrieved from a corresponding set of message strings and encoded in a message (column 9, line 64 to column 10, line 8 and column 10, lines 54-67) wherein the message provides instructions for correcting environmental conditions dealing with at least one of product safety and product quality (column 9, line 64 to column 10, line 8 and column 10, lines 54-67).

It would have been obvious to one having ordinary skill in the art to modify the invention of Gatling to specifically include, responsive to the comparison, retrieving at least a first message string from message string sets encoded in a message string, as taught by Sharood, because, as suggested by Sharood, the combination would have improved the remote analysis and monitoring of a display case by, in addition to determining when an undesirable conditions exists, sending a message indicating what action is required to fix the undesirable condition (column 9, line 64 to column 10, line 8 and column 10, lines 54-67).

Although the combination of Gatling and Sharood teaches encoding separate messages with particular strings for each condition rather than encoding the same message with multiple strings, Applicant fails to provide any criticality to using the

same message and it would have been obvious to one having ordinary skill in the art to provide more than one string in the same message to reduce the burden of transmission of a plurality of separate messages.

Further, with respect to claims 14-17, the invention of Gatling and Sharood does teach a data structure for storing one or more entries (sensor set points and temperatures) (Gatling, column 7, lines 46-56). While the combination does not teach all of the specifics of a plurality of tables, the tables as claimed are considered to be data structures that do not define any functional interrelationships between the data structures and other claimed aspects of the invention which permit the data structure's functionality to be realized. Since it has been held that such a data structure is considered to be non-statutory under 35 U.S.C. 101, these data structure claims are not considered to make the claimed invention patentable over the prior art (See e.g., Warmerdam 33 F.3d at 1361. 31 USPQ2d at 1760).

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gatling et al. in view Sharood et al. and further in view of U.S. Patent No. 6,553,336 to Johnson et al.

As noted above, the invention of Gatling and Sharood teaches many of the features of the claimed invention including retrieving at least one previously recorded/logged temperature level, processing the at least one retrieved temperature level according to an algorithm to provide an algorithm value in the form of an average up to a current time, compare the algorithm value (i.e. average) to a

predetermined benchmark value, and provide an alarm signal responsive to a predetermined relationship between the algorithm value and the benchmark value. The invention of Gatling and Sharood, however, does not specifically record a current time at which each temperature is recorded as part of a trend interval.

Johnson teaches a smart remote monitoring system and method including means for monitoring temperature (column 21, lines 51-54) of a food storage device to prevent health problems or expense of spoiled food (column 25, lines 55-56) wherein each temperature is stamped with a current time (column 15, lines 67-43 and column 16, lines 62-66) in order to develop a trend interval (column 15, lines 54-59 and column 21, lines 34-42).

It would have been obvious to one having ordinary skill in the art to modify the invention of Gatling and Sharood to include recording a current time at which each temperature is recorded as part of a trend interval, as taught by Johnson, because, as suggested by Johnson, the combination would have provided means for developing a trend to thereby reduce the chance of undesirable conditions by predicting such an occurrence to allow correction (column 15, lines 54-59 and column 21, lines 34-42).

7. Claims 6-9 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gatling et al. in view Sharood et al. and further in view of U.S. Patent Application Publication No. 2001/0045096 to Tatter.

As noted above, the invention of Gatling and Sharood teaches many of the features of the claimed invention including comparing the parameter levels to the predetermined parameters in order to control food spoilage and retrieve a message string from a sent of message strings to encode a message based on the comparison, however, the combination does not specifically set additional (i.e. third) particular predetermined parameters for separately determining conditions of reduced quality and safety.

Tatter discloses a storage condition controller for monitoring and controlling the environmental conditions of multiple spaces in a refrigerator in order to store food in the refrigerator spaces at optimum temperatures based upon predetermined quality and safety storage temperatures relating to different identified foods or food groups to be stored in the compartments/cases (0002, 0007, and 0008). Tatter discloses executing this process by recording the manufacturer or user set temperature limits in a memory of the circuitry (0019), implementing first and second temperature sensors coupled to each of the environmental spaces (0024), that sense first and second temperature parameters representing the temperature of a product proximately stored in the spaces (0008) to insure product quality and safety (0030). Tatter also discloses connecting the sensors to a control module (0033) and a display that displays the compartment, food group, and temperature (0034), and a data analyzer that obtains the sensor signal and predetermined values to determined if the temperature is higher than a first predetermined maximum temperature or lower than a second predetermined minimum temperature to provide

instructions that adjust the system accordingly (0037). Tatter also discloses using the predetermined temperature values to monitor on the display and adjust the condition in multiple compartments of the refrigerator to increase the user's control for preserving food, maintaining quality, preventing food born illness, and conserving energy (abstract).

It would have been obvious to one having ordinary skill in the art to modify the invention of Gatling and Sharood to include specifically setting additional (i.e. third) particular predetermined parameters for separately determining conditions of reduced quality and safety, as taught by Tatter, because, as suggested by Tatter, the combination would have provided separate thresholds for distinguishing between the reduction of food quality as well as unsafe conditions thereby allowing the user to reduce waste by determining whether specific food products have reached an undesirable, but still consumable, quality without the risk of consuming an unsafe product (0002 and 0005-0007).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

U.S. Patent No. 6,411,916 to Pellerin teaches a food safety control method and apparatus that distinguishes between expired food and unsafe food.

U.S. Patent No. 3,768,976 to Hu et al. teaches a temperature-time integrating indicator for indicating temperature exposure of a food product.

U.S. Patent No. 4,823,290 to Fasack et al. teaches a method and apparatus for monitoring the operating environment of a computer system including control point tables.

U.S. Patent No. 5,182,212 to Jalinski teaches a time temperature with a distinct end point.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. West whose telephone number is (571)272-2226. The examiner can normally be reached on Monday through Friday, 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571)272-2216. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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